

Title (en)

Cushioning air bag with predetermined opening in air cylinder turning zone and manufacturing thereof

Title (de)

Kissen-Airbag mit vorbestimmter Öffnung in einem Luftzylinder-Faltbereich und Herstellung davon

Title (fr)

Sac d'air d'amortissement avec ouverture prédéterminée dans la zone de pliage du cylindre à air et son procédé de fabrication

Publication

EP 2610050 A2 20130703 (EN)

Application

EP 12177446 A 20120723

Priority

TW 100150083 A 20111231

Abstract (en)

A method for making a cushioning air bag, including: providing an air cylinder sheet (200) constituted by a plurality of air cylinders (1) formed by adhering two sheets of film (1a) with a plurality of longitudinal and transversal heat sealing lines (21,22); forming a plurality of turning points (4a, 4b) on each side of a middle line (M) being transversal to the air cylinders; turning the air cylinder sheet through the turning points along the middle line; adhering two sides of the turned air cylinder sheet with lateral heat sealing lines extending from two respective ends of the air cylinder sheets to a plurality of nodes (31a, 31b) on two respective sides of said middle line, thereby creating a non-heat sealing section (3) between the plurality of nodes and the middle line; and expanding the non-heat sealing section to form a lateral polygonal opening (40).

IPC 8 full level

B31D 5/00 (2006.01); **B31B 50/00** (2017.01); **B65D 81/05** (2006.01)

CPC (source: EP US)

B31D 5/0073 (2013.01 - EP US); **B65D 81/02** (2013.01 - US); **B65D 81/03** (2013.01 - EP US); **B31D 2205/0047** (2013.01 - EP US); **B31D 2205/0064** (2013.01 - EP US); **B65D 31/14** (2013.01 - US); **Y10T 428/1334** (2015.01 - EP US)

Cited by

CN110577019A; EP2778095A1; EP3575239A1; US10974886B2; EP2921425A1; JP2020169028A; CN104787424A; EP2921739A1; CN106313640A; EP3248901A4; WO2020203070A1; WO2015106712A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2610050 A2 20130703; **EP 2610050 A3 20140122**; **EP 2610050 B1 20181226**; TW 201326002 A 20130701; TW I426040 B 20140211; US 2013171384 A1 20130704; US 9616634 B2 20170411

DOCDB simple family (application)

EP 12177446 A 20120723; TW 100150083 A 20111231; US 201213542877 A 20120706